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INFORMATION

VLADIMIR FEDOROVICH SOLINOV
On his 75th birthday

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Vladimir Fedorovich Solinov, one of the greatest specialists in the glass industry, General Director of the Scientific-Research Institute of Technical Glass, JSC [NITS, JSC], Doctor of Technical Sciences, Professor and member of the editorial council of *Glass and Ceramics*, celebrated his 75th birthday on April 29, 2013.

The year 2013 marks 40 years since V. F. Solinov became the head of NITS, JSC. During this period of time the institute gained worldwide fame for its achievements in the field of glass-making. Glass-based articles were developed and manufactured using new technologies for the aerospace, transport, construction and other industries.

In 1960, after graduating from the D. I. Mendeleev Moscow Chemical Technology University (now D. I. Mendeleev Russian Chemical Technology University) V. F. Solinov took a job at the NITS and has now been there for 53 years.

His first research work was performed in the period 1960 – 1967. The problem of obtaining a vacuum-sealed glass-metal faceplate for high-resolution introscopy instruments was solved. As a result of subsequent research glass exhibiting the Faraday Effect as well as photochromic, electrochromic and magnetic glasses were synthesized for the first time in the USSR.

In 1967 – 1971 R&D work, performed jointly with Professor Kh. S. Bogdasarov, on growing single-crystal leucosapphires of large sizes by zone melting was completed and a transparent material withstanding operating temperatures above 1700°C for manufacturing glazing for supersonic aircraft was developed.

In 1973 V. F. Solinov was appointed director of the institute. At the time he was one of the youngest heads of enterprises in the Ministry of the Aviation Industry in the USSR. This was a very crucial, critical period in his life. Aside from performing scientific and applied work in a wide range it was necessary to solve problems of supplying glazing for aviation, space, deep-water and special ground-based technology.

More than 300 new parts were developed under the supervision of and with the direct participation V. F. Solinov. These included, among others, the following:

– birdproof glazing for the Ty, Il series and An-70, An-72 and Yak-42 aircraft;

– facilitated no-binding glazing for MiG-29, Su-29, Su-35, T-50 and Yak-130 jets;

– bulletproof articles for Su-25, Il-76 jets and Ka-50, K-52, Mi-8 and Mi-28 helicopters;

– precision port-holes and optical light ports operating in the visible and IR ranges of the spectrum, for on-board optical instruments and systems;

– high-temperature precision optical port-holes for all spacecraft, including the spaceships Salyut and Soyuz, orbiting space station Mir, interplanetary space stations Venera, Mars, Kometa Galleya, reusable spaceships Buran, multipurpose space system Al'fa;

– high-strength port-holes for ship and deep-water technology;

– sarcophagus for the V. I. Lenin mausoleum and similar structures in a number of countries.

The principles for using high-strength inorganic materials (glass, ceramic, sitals) in structures were developed and a new class of articles — articles for structured optics (ASO), possessing high strength, optical and protective properties for operation under different conditions — was created with the direct participation of Vladimir Fedorovich at the institute.

Having kept the ideology of S. M. Brekhovskikh, his predecessor and teacher, for the development of the institute and following his system for solving all problems in a closed cycle from technical tasks to finished articles, Vladimir

Fedorovich was able to take the institute's advances to the world and in some directions to a higher level.

The institute is proud of the unique new methods and technologies for molding 3D glass articles, technology for strengthening glass, laser cutting and working, IR glasses, compositions of transparent armor, and designs of articles.

A glass-ceramic material, now termed NIASit (NIAS — the first name of NITS), which was used successfully for the first time in world practice in rocket building for the S-300 system, was developed during V. F. Solinov's tenure (1973 – 1978) as head of the affiliate of the NITS in Obninsk (now the Research and Production Enterprise Tekhnologiya, JSC). Ceramic rods of the cooled blades of gas-turbine engines and a technology for using ceramic stamps for molding metallic parts in a superplastic state were developed at the same time.

V. F. Solinov ably combines administrative and scientific work. He is the author of more than 100 Inventor's Certificates and patents and 150 scientific publications. He is a member of the scientific council of the D. I. Mendeleev Russian Chemical Technology University and he has worked successfully with the journal *Glass and Ceramics* for many years.

V. F. Solinov is vice-president of the A. M. Prokhorov Academy of Engineering Sciences, an Active Member of the Russian Academy of Natural Sciences and a Corresponding Member of the Academy of Technological Sciences of the Russian Federation.

During the difficult 1990s V. F. Solinov was able to save the scientific and production potential of the institute. In subsequent years he strengthened its position, and now the institute continues performing work and making deliveries directed toward the development of the domestic aerospace technology. One of the institute's latest works is unique glazing for a fifth-generation jet.

V. F. Solinov's scientific and production work has been recognized by state awards: Order of the Badge of Honor — 1976, 1984 and Order of Friendship — 1996. He is a Laureate of the 1978 State Prize of the USSR, 1988 Prize of the Council of Ministers of the USSR and 2005 Prize of the Government of the Russian Federation. He was awarded the Honored Aircraft Builder badge in 1978.

Vladimir Fedorovich Solinov enjoys well-deserved authority among his colleagues and is well known as an outstanding scientist to specialists in the glass and aviation industries of Russia and many foreign countries.

The Editorial Board and Editorial Staff of the journal Glass and Ceramics sincerely congratulate Vladimir Fedorovich on his birthday and wish him good health, happiness and more creative success!